

Bristol Bay Area Service Unit

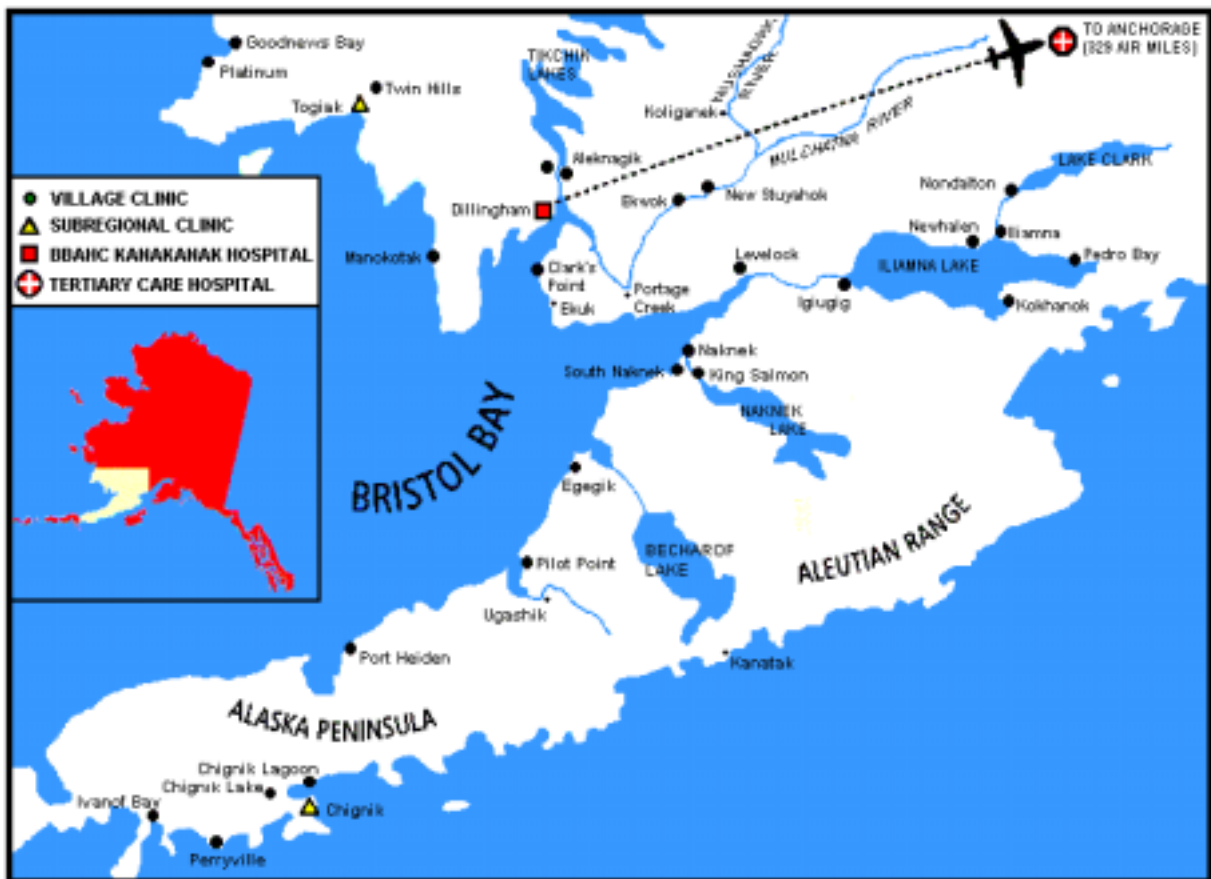
OVERVIEW

Alaska Native 1998 User Population.

BRISTOL BAY AREA HEALTH CORPORATION	7,145
Anchorage Service Unit - BBAHC (part)	694
Bristol Bay Area Service Unit - BBAHC (part)	6,451

Users are defined as beneficiaries who used a facility that reports through the IHS data system at least once between 10/1/95 and 9/30/98.

Environmental Factors. The Bristol Bay Area Service Unit region consists of 46,714 square miles. This part of Southwestern Alaska has a great variety in the climate, topography, people, economics and culture. The service unit surrounds Bristol Bay and extends from the Pacific side of the Alaska Peninsula northeast to Lake Iliamna on the east. The northern and western boundaries of the Service Unit are the Taylor and Kuskokwim Mountains.



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A coastal-type climate prevails over the area. Temperatures are cool and rainfall is moderate. Temperatures range from 50 to 70 degrees in summer to 10 to 20 degrees in winter. Occasionally, lows reach -30 degrees when the northerly winds blow cold air. Winter snow accumulations range from very heavy in the mountains to light along the coast, where high winds and frequent thaws keep the tundra relatively free of snow. Winds of 25 to 35 miles per hour for extended periods are not uncommon. Ice-covered roads hamper transportation for much of the winter.

Utilities. Utilities are available in parts of the Bristol Bay Service Unit. Electricity, water and sanitation facilities serve the hospital and other buildings on the compound in Dillingham. Most villages have electricity, and the majority have some form of sanitation facilities.

Communications. Communications include radio station KDLG-AM and KRUP-FM. Dillingham and a few outlying villages have satellite TV stations and cable. Long distance telephone service is available through a local cooperator or satellite dish supplied by statewide carriers. The *Bristol Bay Times*, a local newspaper, is published weekly. Most villages have telephones and daily or weekly postal service.

Transportation. Daily airline service links King Salmon, Dillingham, and Anchorage. Transportation scheduled and chartered, between outlying villages and Dillingham, is mainly by local air carriers, supplemented by boats in summer and snowmobiles in winter. The only roads for automobile travel are among Dillingham, Aleknagik and Kanakanak; between Iliamna and Newhalen; and between Naknek and King Salmon. Equipment and supplies must be shipped via airfreight, barge or through the postal service.

Housing. Housing is limited on the Kanakanak compound in Dillingham, but private housing and land are available for sale in the community. Overall, housing is expensive and often difficult to find.

Education. Dillingham has an independent school system that includes kindergarten through twelfth grade as well as a private church school and an independent Preschool and Day Care Program. College courses are available at the high school and Dillingham branch of the University of Alaska-Fairbanks. The Bristol Bay Borough School System services Naknek, South Naknek

Bristol Bay Region

	Dillingham Census Area	Bristol Bay Borough	Lake & Peninsula Borough
White Population	21.2%	53.8%	23.6%
AI/AN Population	78.5%	42.1%	75.6%
Black Population	0.1%	2.6%	0.2%
Asian & Pacific Islanders Population	0.2%	1.5%	0.6%
Hispanic Population	1.6%	12.7%	1.7%
Median Age (1996)	\$28%	\$33%	\$28%
Under 20 (1996)	41.3%	34.8%	42.1%
Ages 20 to 64	53.8%	61.3%	52.7%
Age 65 years & older	4.9%	3.9%	5.2%
Personal per capita income (1994)	\$22,323	\$31,950	\$18,803
Annual average monthly earnings (1995)	\$2,251	\$2,556	\$1,739
All persons living in poverty (1993)	21.2%	5.4%	26.8%
Annual Average Unemployment Rates for 1996	7.9%	9.1%	7.7%
Percent high school graduates	82.5%	89.8%	60.7%
Percent bachelors degree or higher	21.3%	18.9%	14.4%

SOURCE: State of Alaska, Alaska Department of Labor, Research and Analysis Section, Alaska Economic Trends, July 1997, p12.

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and King Salmon. South West Region Schools, the Lake and Peninsula School Districts and the Lower Kuskokwim School District service the outlying villages.

Natural Resources. Fish and game are the major natural resources in the region. The salmon industry dominates the local economy. Bristol Bay is one of the world's richest salmon fisheries. During the summer commercial fishing season, the population usually doubles or triples. Communities with canneries attract the majority of the summer transient population as well as residents from other area villages. The region's beauty and bountiful fish and game coupled with a rich Alaska Native Culture attract a growing eco-tourism effort.

Tribes. Federally recognized tribes for the Bristol Bay Region are listed below.

Bristol Bay Area Health Corporation Region

Native Village of Aleknagik - P.O. Box 115, Aleknagik, AK 99555
Native Village of Chignik - General Delivery, Chignik, AK 99563
Native Village of Chignik Lagoon - General Delivery, Chignik Lagoon, AK 99565
Chignik Lake Village - P.O. Box 33, Chignik Lake, AK 99548
Village of Clark's Point - P.O. Box 16, Clark's Point, AK 99569
Native Village of Dillingham - P.O. Box 216, Dillingham, AK 99576
Egegik Village - P.O. Box 189, Egegik, AK 99579
Native Village of Ekwok - General Delivery, Ekwok, AK 99576
Ekwok Village - P.O. Box 49, Ekwok, AK 99580
Native Village of Goodnews Bay - P.O. Box 3, Goodnews Bay, AK 99589
Igiugig Village - P.O. Box 4008, Igiugig, AK 99613
*Village of Iliamna - P.O. Box 286, Iliamna, AK 99606
Ivanof Bay Village - P.O. Box KIB, Ivanof Bay, AK 99502
Native Village of Kanatak IRA - c/o Becharof Corp. 1577 C Street Plaza, #110, Anchorage, AK 99501
King Salmon Tribe - General Delivery, King Salmon, AK 99613
*Kokhanok Village - P.O. Box 1007, Kokhanok, AK 99606
Koliganek Village - P.O. Box 5057, Koliganek, AK 99559
Levelock Village - P.O. Box 70, Levelock, AK 99625
Manokotak Village - P.O. Box 169, Manokotak, AK 99628
Naknek Native Village - P.O. Box 106, Naknek, AK 99633
New Stuyahok Village - P.O. Box 49, New Stuyahok, AK 99636
*Newhalen Village - P.O. Box 207, Iliamna, AK 99606
*Nondalton Village - General Delivery, Nondalton, AK 99640
*Pedro Bay Village - P.O. Box 47020, Pedro Bay, AK 99647
Native Village of Perryville IRA - P.O. Box 101, Perryville, AK 99648
Native Village of Pilot Point - P.O. Box 449, Pilot Point, AK 99649
Platinum Traditional Village - General Delivery, Platinum, AK 99651
Native Village of Port Heiden - P.O. Box 49007, Port Heiden, AK 99549
Portage Creek Village - General Delivery c/o Choggiung, Portage Creek, AK 99576
South Naknek Village - P.O. Box 70106, South Naknek, AK 99670
Traditional Village of Togiak - P.O. Box 209, Togiak, AK 99678
Twin Hills Village - P.O. Box TWA, Twin Hills, AK 99576-8996
Ugashik Village - General Delivery via, King Salmon, AK 99613

*Physician support is from the Alaska Native Medical Center versus Kanakanak Hospital.

Bristol Bay Area Service Unit

DESCRIPTION OF HEALTH-CARE DELIVERY SYSTEM

The Service Unit is operated by the Bristol Bay Area Health Corporation (BBAHC). The Bristol Bay Area Health Corporation (BBAHC) is a private, nonprofit, Native organization incorporated in the State of Alaska in June 1973. The Corporation's purpose is to manage and develop regional services and programs, which directly affect the health and well-being of the Native residents of the Bristol Bay region. Governed by a Board of Directors which includes representatives from each of the 34 communities in the region, BBAHC provides a wide array of primary, preventive and educational health care services. An executive committee, chief executive officer and staff meet in between the other meetings, the full board meets twice a year directing programs funded by IHS, other federal agencies and the State of Alaska.

Under the Alaska compact with the Indian Health Service authorized by the Indian Self-Determination Act, the Bristol Bay Area Health Corporation, which manages the Kanakanak Hospital is the primary health care provider in the region. BBAHC strives to provide the best quality health care to the people of the Bristol Bay Area.

Name and location of Hospitals/Clinics.

Kanakanak Hospital - 6000 Kanakanak Road, P.O. Box 130, Dillingham, Alaska 99576

Chignik Bay Sub-Regional Clinic - P.O. Box 90, Chignik Bay, AK 99564

Togiak Sub-Regional Clinic - General Delivery, Togiak, AK 99678

The Community Health Aides/CHA/Ps are the primary source of medical services in the villages outside Dillingham. Also trained in emergency medicine, these aides fulfill several vital functions in their communities. First, they provide primary, preventive and emergency services. Second, they are the link between hospital, medical and social services staff and the patients in the village who need more serious or follow-up care. And third, they coordinate and assist at field visits from hospital physicians, dental staff and the State Public Health Nurses. The CHA is the key to the provision of services in the region.

Community health aides are located in 28 villages:

North Aleknagik	Clark's Point	*Illiamna	Levelock	*Nondalton	Port Heiden
South Aleknagik	Egegik	Ivanof Bay	Manokatok	*Pedro Bay	South Naknek
Chignik	Ekwok	King Salmon	Naknek	Perryville	Togiak
Chignik Lagoon	Goodnews Bay	*Kokhanok	*Newhalen	Pilot Point	Twin Hills
Chignik Lake	Igiugig	Koliganek	New Stuyahok		

*Physician support is from the Alaska Native Medical Center versus Kanakanak Hospital.

In February of 1986, the Chignik Bay Sub-Regional Clinic was opened to serve the South Side of the Alaska Peninsula region. Two Community Health Aides, an itinerant CHA, a mid-level practitioner and a medical receptionist are staff at the clinic. The Clinic has a x-ray unit, which provides early diagnosis and often saves patients expensive transportation costs associated with proper diagnosis and treatment in Dillingham. The Togiak subregional clinic opened in 1999 to serve the Togiak subregion. The clinic is staffed with a mid-level

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practitioner, a medical receptionist, four CHAs and an itinerant CHA. A new clinic is currently being constructed in Togiak.

Bristol Bay Area Health Corporation operates the 15-bed 30,000 square-foot Kanakanak Hospital in Dillingham. The old hospital, built in 1941, now provides office space for the corporation. The hospital has a fully-equipped outpatient department and a four-chair dental clinic. Personnel from the Alaska Native Medical Center (ANMC) provide specialty clinics.

BBAHC has programs in accident and injury control, emergency medical services training, drug and alcohol abuse, maternal child health, women infant and children (WIC), mental health, community health aide/representative training, health education, dentistry, optometry, remote maintenance, audiology, and infant learning. These programs complement the Hospital Services and Administration Services of the Corporation. A Respite Program in conjunction with our Mental Health Program is provided out of "Our House," and a new Mental Health office complex is in the planning stage. Jake's Place, provides counseling, treatment, housing and aftercare. Plans for a Detox is planned.

The Kanakanak Hospital is fully accredited by the Joint Commission on Accreditation of Health Care Organizations, and the laboratory is accredited by the College of American Pathologists. The pharmacy is State-licensed. The Environmental Health Department has a state license for doing water samples.

NON-TRIBAL HEALTH AGENCIES AND FACILITIES AND TYPES OF SERVICES PROVIDED TO SERVICE POPULATION

Public health nurses serve the area under the auspices of the State of Alaska. The Camai health clinic located in Naknek contracts with a private organization which supplies physicians and other medical personnel.

Two chiropractic offices operate out of Dillingham, one on a permanent basis, the other on an itinerant basis. A private dentist is located in Dillingham.

The Dillingham Senior Citizen Center provides recreation and lunch service to seniors. Additionally, the regional housing authority has units available to seniors.

Other resources include the Health and Social Services Department of Family and Youth Service, the Public Assistance Division and the Division of Social Services.

The S.A.F.E. (Safe and Fear Free Environment) organization provides crisis call services and counseling and education services. Also, S.A.F.E. offers secure housing to women and children living in unhealthy home environments throughout the region.

Dillingham has a volunteer fire department and rescue squad and several communities have Emergency Medical Service (EMS) village response teams.

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HEALTH SERVICES AND FACILITIES PLANNING ISSUES

BBAHC's planning assumptions for addressing future demands for health care services are as follows:

1. The percentage of elderly in the Native population continues to increase. The demand for geriatric services and long-term care will grow.
2. The closest current long-term care facilities are all over 350 air miles away, with a waiting time of two weeks to two months for admission. There are no current plans by any outside agency to increase long-term care facilities in the area.
3. "Swing-bed" or "step-down-care" capabilities due to conditions resulting from the size of the Service Unit and lack of any other facilities within 350 miles will need to be continued and/or expanded. The one room set aside for psychiatric and alcohol patients are totally inadequate for the population, a minimum of six beds would be desirable.
4. Home health care capabilities are limited within the Service Unit at the current time.
5. There is an increased number of cancer patients. These patients utilize a substantial amount of outpatient and inpatient services. Without adequate space at Kanakanak Hospital, more patients need to be transferred to the Alaska Native Medical Center or to other contract hospitals in Anchorage or Seattle.
6. Substance abuse will continue to increase within the service unit. Patient education and prevention activities will need to be continued/expanded.
7. Alcohol related complications will continue to increase thus impacting both inpatient and outpatient capabilities. Additional space and programs are needed to address alcohol and substance abuse issues, particularly with adolescents.
8. Title 47 (Public Inebriates) regulations will continue to impact both inpatient and outpatient services.
9. Expanded health education and safety programs are needed to help decrease the demand for medical and dental services.
10. The role of the village clinic will expand as the village population grows and the demand for more village-based services increases. In addition to both updated and increased village clinic space, office space and housing for village-based counselors in each village needs to be addressed along with appropriate transportation and equipment needs.
11. The demand for mental health services will increase and will be met through expanded outpatient services requiring a larger mental health facility. Because of the addition of the crisis/respite facility, the need for transitional living arrangements beyond 90 days has greatly increased. Still needed are a group home for 3-4 residents with 3-4 attached supported apartments.
12. General transportation capabilities will continue to be dependent on air travel. The possibilities of adverse weather conditions will always impact future health care delivery planning. In particular, regularly scheduled air transportation to Goodnews Bay and Platinum from Dillingham, and to the Iliamna Lake villages is a real need.
13. There will be a need for expanded community services such as physician visits, dental services, optometry visits, health education, etc. and program space to accommodate these health care providers. The desire for more village-based positions will also increase.

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14. Increased hospital and outpatient clinic based services will require greater staffing. Increased staff will result in a need for increased space as will the nationwide trend to increase outpatient care instead of hospitalization.
15. The life expectancy for Natives will continue to increase and chronic diseases will increase resulting in the need for additional rehabilitative services as well as long-term care options.
16. The need for dental services will continue to grow.
17. The increase in chronic disease and other physical disabilities will require a fully staffed physical and occupational therapy department.
18. Expanded patient quarters are needed for overnight stay for follow-up appointments and weather problems. Additional space is needed for temporary quarters for both patients and health care providers.
19. A Master Site Plan was developed for the Kanakanak compound - \$20 million in upgrades is needed.

The Bristol Bay Area Health Corporation has determined the following facility modifications and/or additions be undertaken to meet the projected health demands of the service unit:

1. A new facility to accommodate dental practice;
2. Expanded outpatient clinic facilities to include additional treatment rooms, office/program areas to support need for increased staff for new and expanded programs such as audiology, physical therapy; and financial counselling;
3. Long-term care facility (nursing home, assisted living) to support aging population;
4. New maternal child health boarding home;
5. A new Community Health Aide Training facility to be located at the Kanakanak Hospital compound;
6. An additional secure room at Kanakanak Hospital;
7. Mental Health program office and group home/apartments for clients;
8. Additional space for families receiving intensive alcohol and drug abuse therapy services;
9. Additional office space for administrative functions;
10. Patient housing;
11. Employee housing;
12. Roof modifications to "new hospital" to meet current state codes;
13. Implement recommendations from initial "deep look" survey;
14. Expanded infrastructure to support needed building plan;
15. Erosion control of Kanakanak bluffs;
16. Adequate sized meeting/training room for all employee on full board meetings, etc.; and
17. Additional space for adolescent alcohol/drug counseling and treatment.
18. Sewage lagoon at Kanakanak Hospital compound.
19. Need new "deep look" survey.

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SPECIAL HEALTH INITIATIVES

In February 1992, in conjunction with the State of Alaska, Division of Mental Health and Developmental Disabilities, a village-based program was started in the areas of mental health and substance abuse. This program trains village workers in basic outreach, case management and counseling skills through the University of Alaska Fairbanks Rural Human Services Certificate Project. The addition of village-based mental health/alcohol counselors has helped relieve the CHAs of providing care and follow-up in these areas. These positions also assist with community development and provide education to communities and schools on mental health, alcohol and drug abuse issues.

BBAHC has received a three year \$450,000 Robert Wood Johnson Foundation grant for the development of a hospice program for the Bristol Bay area.

HEALTH STATUS OF ALASKA NATIVES LIVING IN THE BRISTOL BAY AREA SERVICE UNIT

Mortality. The following table shows the Bristol Bay Area Native deaths by age group and the crude rates by leading causes.

Bristol Bay Area Service Unit
Alaska Native Deaths by Age and
Three-Year Average Crude Death Rates per 100,000 Population

	1995	1996	1997	1998	3 -Year Rate
Total Deaths	27	29	33	29	579
Age at Death:					
under 5	0	2	1	1	
5-9	1	0	0	0	
10-14	1	0	0	1	
15-24	1	2	3	1	
25-44	7	4	12	5	
45-64	4	3	5	5	
64+	13	18	12	16	
Age Unknown	0	0	0	0	

Leading Causes of Death	1993-1995 /4		1994-1996 /4		1995-1997 /4		1996-1998 /4	
	AI/AN	U.S.	AI/AN	U.S.	AI/AN	U.S.	AI/AN	U.S.
1) Unintentional Injuries (Accidents) /1	122.5	35.1	112.8	35.5	148.8	35.8	133.6	36.2
Water Transport/Drowning	13.6	1.6	33.2	1.7	32.4	1.6	31.8	20.1
Motor Vehicles	27.2	16.3	26.5	16.5	32.4	16.5	31.8	16.1
2) Malignant Neoplasms /2	108.9	205.2	112.8	204.9	103.5	203.4	120.9	200.3
Lung Cancer	13.6	57.4	46.4	57.5	38.8	57.3	31.8	59.1
3) Heart Disease	102.1	281.3	99.5	280.7	64.7	276.4	76.4	268.2
4) Cerebrovascular	13.6	58.9	13.3	60.1	51.8	60.3	57.3	58.6
5) Chronic Obst. Pul. Diseases	27.2	39.0	39.8	39.2	38.8	40.0	50.9	41.7
6) Suicide	20.4	12.0	13.3	11.9	32.4	11.6	31.8	11.3

1/ Does not include injuries purposefully inflicted or injuries undetermined whether purposefully or accidentally inflicted. Motor Vehicle and Water Transport/Drowning are also counted in the total Accidents; it does not include alcohol related deaths.

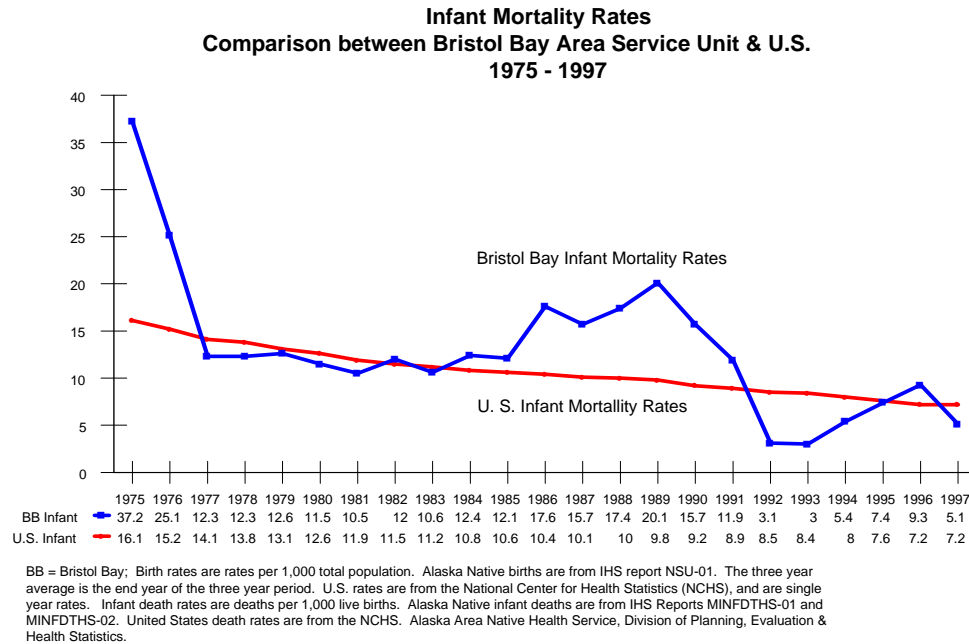
2/ Lung Cancer is included in Malignant Neoplasms.

3/ Alcohol Related deaths include alcoholic psychoses, alcohol dependence syndrome, alcohol abuse, alcoholic liver disease and cirrhosis, alcoholic polyneuropathy, alcoholic cardiomyopathy, alcoholic gastritis, excessive blood level of alcohol, and accidental poisoning by alcoholic beverages and ethyl alcohol.

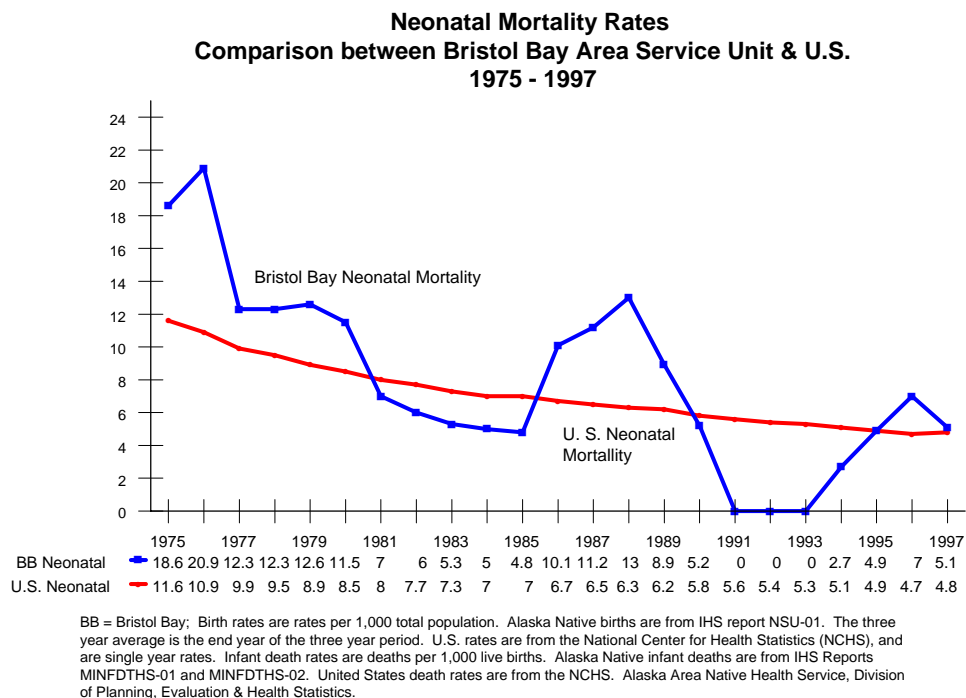
4/ Causes not included when deaths average less than one per year in 1995-97. Single year rates for U.S. Alaska Area Native Health Service, Division of Planning, Evaluation & Health Statistics.

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Infant Mortality. The infant mortality graph compares the death rates between Bristol Bay Service Area and U.S.

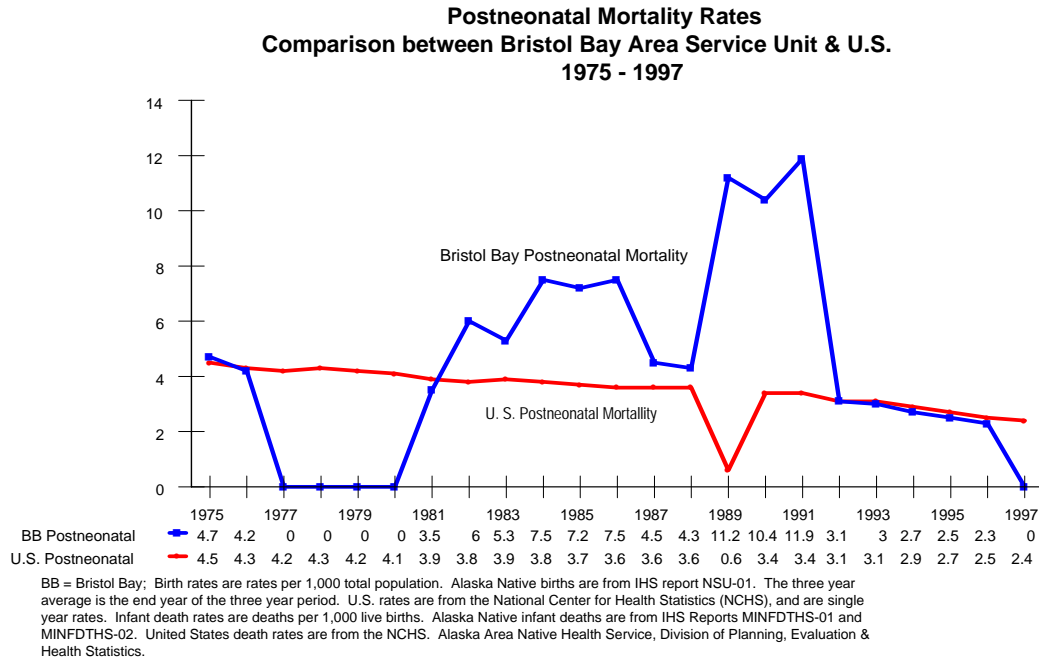


Neonatal Mortality. The neonatal graph compares the Bristol Bay Service Unit and U.S. mortality rates.

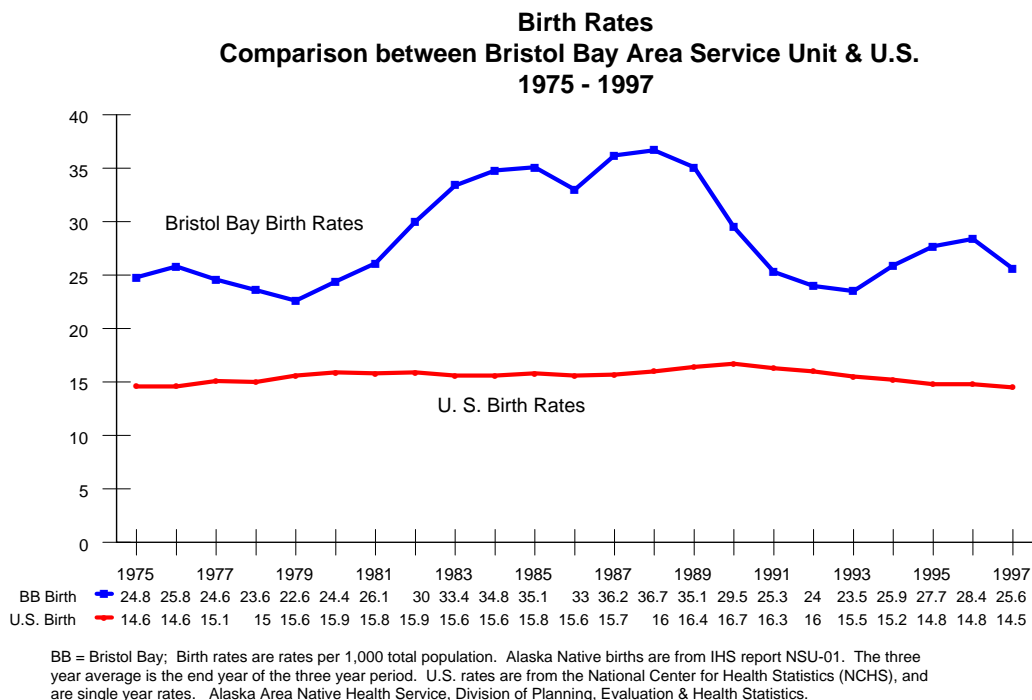


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Postneonatal Mortality. The postneonatal graph displays the mortality rates between Bristol Bay Area and the U.S. There were no postneonatal deaths from 1977 to 1980 and 1997.



Births. The following graph compares the Bristol Bay Area and the U.S. births.



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OUTPATIENT WORKLOAD/DIAGNOSES

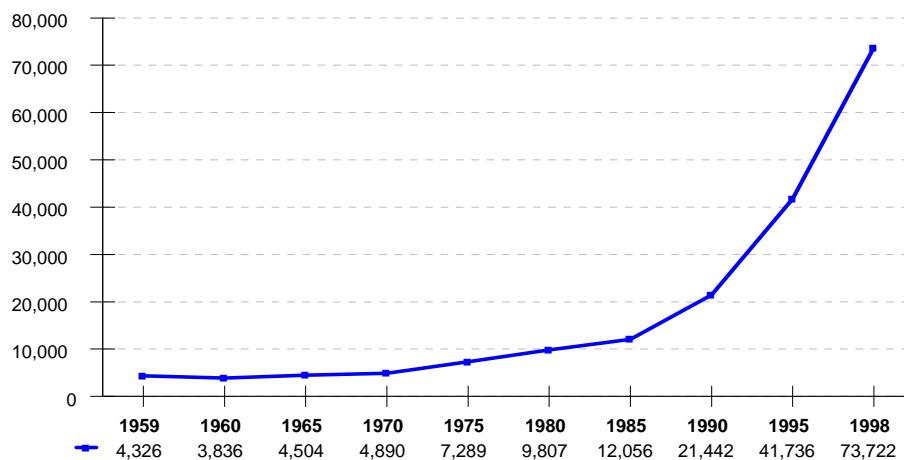
The outpatient workload for Bristol Bay Area Service Unit is rising.

Bristol Bay Area Service Unit Leading Causes of Outpatient Visits: FY 1994 - FY 1997

All Age Groups	FY 1994	FY 1995	FY 1996	FY 1997
Upper Respiratory Problems	5,493	5,766	6,184	5,919
Otitis Media	4,116	3,971	4,226	4,000
Accidents & Injuries	3,437	3,507	3,274	3,435
Prenatal Care	2,167	2,023	2,348	2,001
Medical/Surgical Follow-up	855	1,828	1,904	1,526
Immunization	942	1,458	1,895	2,964
Tests Only	1,496	1,902	1,828	1,955
Hypertension	1,340	1,341	1,582	1,941
Bone & Joint Disorders	934	1,048	1,201	1,338
Refractive Error	1,176	1,369	1,143	1,374

Source: Indian Health Service Inpatient/Outpatient Reporting System, APC Report 1C.

Outpatient Workload Bristol Bay Area Service Unit 1959 - 1998



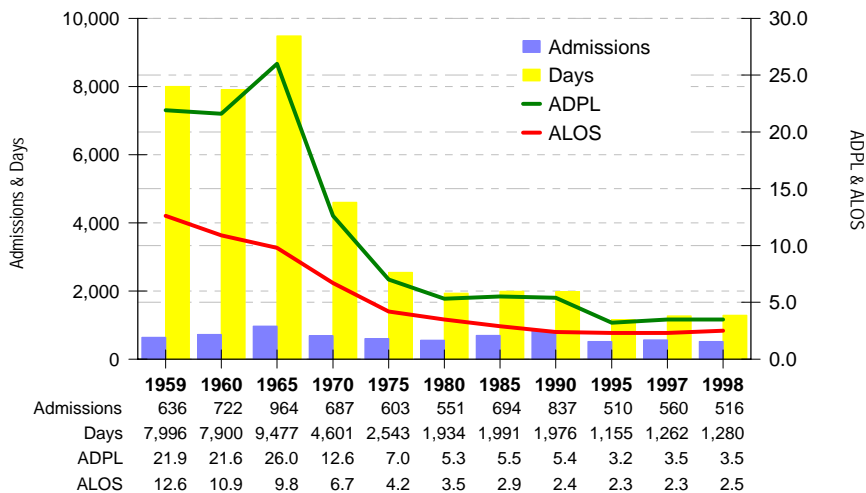
Source: Indian Health Service Inpatient/Outpatient Reporting System in Albuquerque, APC Report 1A.

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INPATIENT WORKLOAD

The inpatient workload (excluding newborns) from 1959 to 1998 are displayed in the following graph. The thick line represents the average daily patient load and the thin line is the average length of stay.

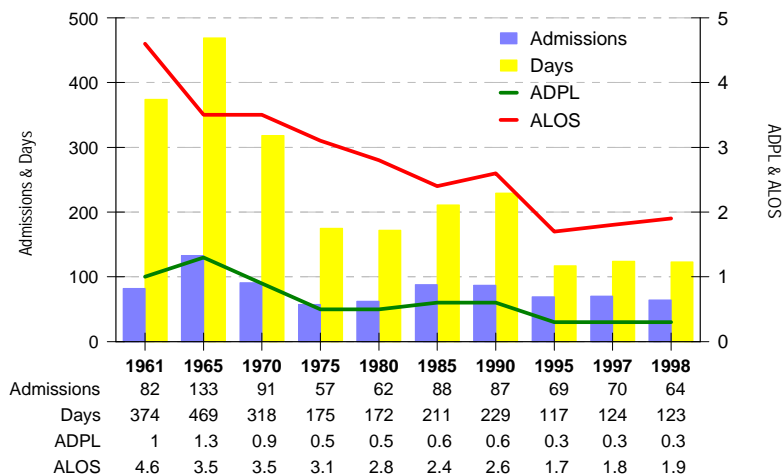
Kanakanak Hospital (Bristol Bay)
Inpatient Workload Excluding Newborns: 1959 - 1998



ADPL=Average Daily Patient Load; ALOS = Average Length of Stay.
SOURCE: HSA-202 Monthly Report of Inpatient Services

Kanakanak Hospital's newborn inpatient workload for the years 1961 through 1998 are displayed in the following graph.

Kanakanak Hospital (Bristol Bay)
Inpatient Newborn Workload
1961 - 1998



ADPL=Average Daily Patient Load; ALOS = Average Length of Stay.
SOURCE: HSA-202 Monthly Report of Inpatient Services

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DISCHARGE DIAGNOSES

Bristol Bay Area Service Unit Leading Causes of Discharges: FY 1994 - FY 1997

	FY 1994	FY 1995	FY 1996	FY 1997
Alcohol Abuse	99	89	117	104
Deliveries (Childbirth)	88	73	86	70
Accidents & Injuries	72	55	45	46
Pneumonia	67	28	52	35
Infected Skin & Abrasions	26	23	19	33
Heart Disease	18	19	28	29
Complications of Pregnancy	29	18	21	23
Undiagnosed Symptoms	22	19	16	21
Bronchitis, Emphysema	4	8	25	14
Diseases of the Stomach	12	10	11	13

Source: Indian Health Service Inpatient/Outpatient Reporting System in Albuquerque, APC Report 2C.